

SYSTEM AND METHOD FOR OPTIMIZING A COMPUTER PROGRAM

ABSTRACT

A method and system for constructing a computer program that solves a problem is disclosed. The invention includes defining a set of traits in which each trait characterizes a portion of a solution algorithm to the problem and defining a programming interface for at least one of the traits. The invention further includes providing an implementation for at least one of the defined programming interfaces. A subtrait associated with at least one of the traits or the implementations is specified and a top-level trait is selected that characterizes a solution to the problem. In addition, a top-level implementation for the top-level trait is selected along with an implementation for each subtrait required for the top-level trait or the top-level implementation. Lastly, an implementation for each subtrait associated with at least one of the traits or the implementations is recursively selected in order to construct a trait hierarchy that forms a computer program for solving the problem.